

Package ‘sqrtn’

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Type Package

Title Calculate sqrt(n) with very high precision

Version 1.0

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Description Calculate sqrt(n) with very high precision, for example 10,000 or bigger.

License GPL (>= 2)

Depends R (>= 3.2.0)

Repository GitHub

NeedsCompilation yes

Encoding UTF-8

Archs i386, x64

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sqrtn-package	<i>Calculate sqrt(n) with very high precision</i>
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Description

Calculate sqrt(n) with very high precision, for example 10,000 or bigger.

Details

Package: sqrtn
Type: Package
Version: 1.0.1
Date: 2019-03-28
License: GPL (>= 2)

`sqrtn`*An R package to calculate \sqrt{n} with very high precision.*

Description

Calculate \sqrt{n} with very high precision. Currently, we approximate $\sqrt{2}$ only. "sqrtn" implements dramatically fast. It takes only 2.57 seconds to approximate $\sqrt{2}$ with 10,000 digits, and 2.98 seconds with 100,000 digits.

Usage

```
sqrtn(prec, n=2)
```

Arguments

<code>prec</code>	A non negative integer, which is the precision you want.
<code>n</code>	A non negative integer, the default is 2. Currently, we can only approximate $\sqrt{2}$.

Value

<code>sqrtn</code>	The digits of the square root of n , which is a string.
<code>prec</code>	The input precision.

Author(s)

Xu Liu

Examples

```
#Example 1
fit <- sqrtn(10)
print(fit$sqrtn, quote=FALSE)

#Example 2
fit <- sqrtn(100)
print(fit$sqrtn, quote=FALSE)
```

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